

DFW

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: OTSU et al. Group Art: UNKNOWN
Serial No.: 10/565,974 Docket: 10873.1857USWO
Filed: January 26, 2006

Title: REMEDY FOR CARDIAC FAILURE CONTAINING ASK1 INHIBITOR AS ACTIVE INGREDIENT AND METHOD FOR SCREENING THE SAME

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on April 26, 2006.

By: RKW
Name: Ralynn Wilhelm

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following papers are transmitted herewith:

- Transmittal Sheet in duplicate containing Certificate of Mailing
- Information Disclosure Statement, Form 1449, 19 references
- International Preliminary Report on Patentability – Form PCT/IPEA/409
- Return Postcard

Please charge any additional fees or credit overpayment to Deposit Account No. 50-3478. A duplicate of this sheet is enclosed.

Hamre, Schumann, Mueller & Larson, P.C.
P.O. Box 2902-0902 Minneapolis, MN 55402
612.455-3800

By: _____
Name: Douglas P. Mueller
Reg. No.: 30,300
Initials: DPM/rkw



10/565,974

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|-------------|---|-----------------|----------------|
| Applicant: | OTSU et al. | Examiner: | Unknown |
| Serial No.: | 10/565, 974 | Group Art Unit: | Unknown |
| Filed: | January 26, 2006 | Docket: | 10873.1857USWO |
| Title: | REMEDY FOR CARDIAC FAILURE CONTAINING ASK1 INHIBITOR AS ACTIVE INGREDIENT AND METHOD FOR SCREENING THE SAME | | |

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on April 26, 2006.

By: Ralynn Wilhelm
Name: Ralynn Wilhelm

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(c))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application, which is not an application under 37 C.F.R. §1.53(d). Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each foreign document or other information listed on the enclosed Form 1449 is provided. As this application was filed after June 30, 2003, copies of the cited U.S. Patent Documents are not included. Copies of the references from the ISR are believed to be available to the Examiner and thus are not provided.

A concise explanation of the relevance of each non-English language document or other information is as follows (37 C.F.R. §(a)(3)):

An English abstract has been provided for WO 02/38179.
JP 10-000093 is corresponding with US 6,194,187.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

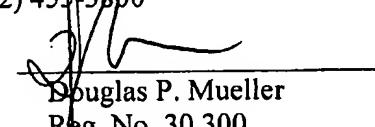
Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Please charge any additional fees or credit any overpayment to Deposit Account No. 50-3478.

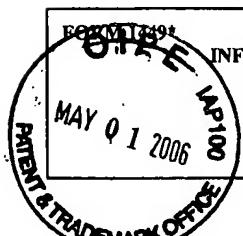
Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902-0902
Minneapolis, MN 55402-0902
(612) 455-3800

Dated: April 26, 2006

By: 
Douglas P. Mueller
Reg. No. 30,300

DPM/rkw



INFORMATION DISCLOSURE STATEMENT

IN AN APPLICATION

(Use several sheets if necessary)

Docket Number: 10873.1857USWO Application Number: 10/565,974

Applicant: OTSU et al.

Filing Date: January 26, 2006 Group Art Unit: unknown

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | DOCUMENT NO. | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|------------------|-----------------|---------------|-----------------|-------|----------|----------------------------|
| | US 6,194,187 | February 2001 | Miyazono et al. | | | |
| | US 2003/0100049 | May 2003 | Guo et al. | | | |

FOREIGN PATENT DOCUMENTS

| | DOCUMENT NO. | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
|--|--------------|--------------|---------|-------|----------|-------------|----|
| | | | | | | YES | NO |
| | WO 02/38179 | May 2005 | WIPO | | | Abstract | |
| | JP 10-000093 | January 1998 | JAPAN | | | | |
| | | | | | | | |
| | | | | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| | |
|--|--|
| | PATTEN, R. et al., "Ventricular remodeling and its prevention in the treatment of heart failure", <i>Current Opinion in Cardiology</i> , Vol. 13, pp. 162-167 (1998) |
| | OLIVETTI, G. et al., "Acute Myocardial Infarction in Humans is Associated with Activation of Programmed Myocyte Cell Death in the Surviving Portion of the Heart", <i>J Mol Cell Cardiol</i> , Vol. 28, pp. 2005-2016 (1996) |
| | CHENG, W. et al., "Programmed Myocyte Cell Death Affects the Viable Myocardium after Infarction in Rats", <i>Experimental Cell Research</i> , Vol. 226, pp. 316-327 (1996) |
| | HIROTA, H. et al., "Loss of a gp130 Cardiac Muscle Cell Survival Pathway Is a Critical Event in the Onset of Heart Failure during Biomechanical Stress", <i>Cell</i> , Vol. 97, pp. 189-198 (1999) |
| | ICHIJO, H., et al., "Induction of Apoptosis by ASK1, a Mammalian MAPKKK THAT Activates SAPK/JNK and p38 Signaling Pathways", <i>Science</i> , Vol. 275, pp. 90-94 (1997) |
| | SAITO, M., et al., "Mammalian thioredoxin is a direct inhibitor of apoptosis signal-regulating kinase (ASK) 1", <i>The EMBO Journal</i> , Vol. 17, No. 9, pp. 2596-2606 (1998) |
| | TOBIUME, K., et al., "ASK1 is required for sustained activations of JNK/p38 MAP kinases and apoptosis", <i>EMBO Reports</i> , Vol. 2, No. 3, pp. 222-228 (2001) |
| | NAKAYAMA, H., et al., "Cardiac-specific overexpression of a high Ca ²⁺ affinity mutant of SERCA2a attenuates in vivo pressure overload cardiac hypertrophy", <i>The FASEB Journal</i> , pp. 02-474fje. (2002) |
| | DATE, M., et al., "The Antioxidant N-2-Mercaptopropionyl Glycine Attenuates Left Ventricular Hypertrophy in In Vivo Murine Pressure-Overload Model", <i>Journal of American College of Cardiology</i> , Vol. 28, No. 5, pp. 907-912 (2002) |

52835

PATENT TRADEMARK OFFICE

| EXAMINER | DATE CONSIDERED |
|---|-----------------|
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant. | |

| | | |
|---|----------------------------------|-----------------------------------|
| FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary) | Docket Number: 10873.1857USWO | Application Number: 10/565,974 |
| | Applicant: OTSU et al. | |
| | Filing Date: January 26, 2006 | Group Art Unit: unknown |

| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) | | |
|--|--|---|
| | | OTSU, K., et al., "Disruption of a single copy of the p38 α MAP kinase gene leads to cardioprotection against ischemia-reperfusion", <i>Biochemical and Biophysical Research Communications</i> , pp.56-60 (2003) |
| | | HIROTANI, S., et al., "Involvement of Nuclear Factor- κ B and Apoptosis Signal-Regulating Kinase 1 in G-Protein-Coupled Receptor Agonist-Induced Cardiomyocyte Hypertrophy", <i>Circulation</i> , pp.509-515 (2002) |
| | | YAMAGUCHI, O., et al., "Targeted Deletion of apoptosis signal-regulating kinase 1 attenuates left ventricular remodeling", <i>The National Academy of Sciences</i> , Vol. 100, No. 26, pp. 15883-15888 (2003) |
| | | HIGUCHI, Y., et al., "The Small GTP-binding Protein Rac1 Induces Cardiac Myocyte Hypertrophy through the Activation of Apoptosis Signal-regulating Kinase 1 and Nuclear Factor- κ B*", <i>The Journal of Biological Chemistry</i> , Vol. 278, No. 23, pp. 20770-20777 (2003) |
| | | FORCE, T., et al., "Apoptosis Signal-Regulating Kinase/Nuclear Factor- κ B – A Novel Signaling Pathway Regulates Cardiomyocyte Hypertrophy", <i>Circulation</i> , pp.402-404 (2002) |
| | | HE, X., et al., "ASK1 Associated with Troponin T and Induces Troponin T Phosphorylation and Contractile Dysfunction in Cardiomyocytes", <i>American Journal of Pathology</i> , Vol. 163, No. 1, pp.243-251 (2003) |
| | | ISHIKAWA, Uehara Memorial Life Science Foundation Research Report Collection, Vol. 17, pp. 419-421, with Partial Translation |
| | | AIKAWA, R., <i>Progress of Medicine</i> , Vol. 193, pp.128-129, with Partial Translation |

| | |
|---|-----------------|
| EXAMINER | DATE CONSIDERED |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant. | |